



# 2014-2015 School Nominee Presentation Form

### **ELIGIBILITY CERTIFICATIONS**

### **School and District's Certifications**

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. In no case is a private school required to make any certification with regard to the public school district in which it is located.

1. The school has some configuration that includes grades Pre-K-12.

Charter Title I Magnet Private Independent

- 2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
- Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
- OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
- The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
- There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
- The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

# U.S. Department of Education Green Ribbon Schools 2014-2015

Name of Principal: Mr. Stephen P. Santilli
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)
Official School Name: William Davies Middle School
(As it should appear on an award)
Official School Name Mailing Address: 1876 Dr. Dennis Foreman Drive, Mays Landing, NJ 08330 (If address is P.O. Box, also include street address.)
County: Atlantic State School Code Number *: 1940
Telephone: 609-476-6241 Fax: 609-476-6250
Web site/URL: <a href="http://www.hamiltonschools.org/Davies/index.html">http://www.hamiltonschools.org/Davies/index.html</a> E-mail: santillis@hamiltonschools.org  *Private Schools: If the information requested is not applicable, write N/A in the space

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

Stephen P. Santilli Date: 1/23/15 (Principal's Signature)

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Name of Superintendent: Dr. Michelle Cappelluti

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: Hamilton Township School District

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

Date: 1/23/15

(Superintendent's Signature)

### **Nominating Authority's Certifications**

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

- 1. The school has some configuration that includes grades Pre-K-12.
- 2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
- 3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: New Jersey Department of Education

Name of Nominating Authority: Mr. Bernard E. Piaia, Jr.

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

Bernard E. Piaia J.

Date: January 29, 2015 (Nominating Authority's Signature)

# SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars and nine Elements. Then, include documentation and concrete examples for work in every Pillar and Element.

## **SUBMISSION**

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

> OMB Control Number: 1860-0509 Expiration Date: February 28, 2015

### **Public Burden Statement**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

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#### **School Contact Information**

School Name: William Davies Middle School	District: Hamilton	Township (Atlantic County)	_
Street Address: <u>1876 Dr. Dennis Foreman D</u>	rive		
City: Mays Landing	State: New Jersey	Zip: <u>08330</u>	_
Website: http://www.hamiltonschools.org/	Davies/index.html		_
Facebook page: https://www.facebook.com	n/pages/William-Davies-Mi	ddle-School/416549681796260?ref=br_tf	
Twitter: @WilliamDaviesMS	_Google+: _https://plus.goo	gle.com/104062298462929804807/posts	_
Instagram: william_davies_ms	YouTube: https://www.yo	utube.com/user/wdmsdragons	_
LinkedIn: http://www.linkedin.com/pub/wil	lliam-davies-middle-school,	/a1231/507	_
Pinterest: https://www.pinterest.com/willia	amdaviesms/		
Principal Name: Mr. Stephen P. Santilli			
Principal Email Address: santillis@hamiltons	schools.org	Phone Number: <u>609-476-6240</u>	
Lead Applicant Name (if different): <u>N/A – Gr</u>	een Ribbon/ Sustainability	Committee Contributed and Edited	
Lead Applicant Email: N/A	Phone N	umber: <u>N/A</u>	

Level [] Early Learning Center [] Elementary (PK - 5 or 6) [] K - 8 [X] Middle (6 - 8 or 9) [] High (9 or 10 - 12)	School Type (X) Public ( ) Private/Independent ( ) Charter	How would you describe your school? ( ) Urban (X) Suburban ( ) Rural	District Name  Hamilton Township  (Atlantic County)  ( ) Largest 50 Districts in the nation?  Total Enrolled:  980
Does your school serve 40% or more students from disadvantaged households? (X) Yes ( ) No	1 % limited English proficient: 0.0132%		Graduation rate: <u>N/A</u> Attendance rate: <u>94.22%</u>

<u>SUMMARY NARRATIVE:</u> Provide an 800 word maximum narrative describing your school's efforts to reduce environmental impact and costs, improve student and staff health, and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships.

"The arrival of the new millennium provides an ideal opportunity to implement a positive vision for the future - one which draws together the peoples and nations of the world behind a common goal"- Restoring the Earth Project. This quote embodies the William Davies Middle School's (WDMS) philosophy to improve our planet and the lives of future generations using best practices in sustainability. WDMS is one of three schools in the Hamilton Township School District in Mays Landing, New Jersey. We host 980 students in grades 6, 7, and 8. As a noted Title I school, 52% of our students receive free and reduced lunch. Although we are one of the largest middle schools in New Jersey, we reach far beyond our state borders through the use of social media and branding. In turn, we have the opportunity, or as we feel, the responsibility, to impact and inspire thousands of individuals both within our own community and around the world.

Our quest to implement an effective sustainability program began five years ago when we applied for the Talent 21 Grant Initiative. We were fortunate enough to be awarded this grant and as a result, every single student at the WDMS was given a netbook. This tremendous opportunity motivated us to rewrite our curriculum in order to utilize this technology to not only create 21st century learners, but also, environmental activists starting as young as age ten. Since that time, we have created and

implemented school-wide, cross-curricular projects (PBL's) focused on sustainability as part of our Environmental Literacy curriculum. Each person in the Davies' family is a stakeholder in the PBL's and "pays it forward" through the implementation of the projects. For example, sixth grade students listen to speakers from the ACUA and create projects demonstrating how they are reducing their carbon footprint. Seventh grade students focus on water conversation via their annual "Walk for Water." This event functions, in conjunction with the help of PlanUSA, to raise money to place wells in Ghana. Now, as almost a rite of passage, our eighth grade students participate in an annual "Green Career Day," which offers presentations from local energy efficient companies. These projects come to fruition on the same days in May for a school-wide "Green" Day. Our environmental curriculum transcends WDMS as our stakeholders have extended their passion for sustainability far beyond the classroom walls and into the community and world. "Green" Day at Davies serves as a living testament to the quote above; clearly, a positive vision and common goal can unite people around the world.

Our Environmental Literacy PBL's are not limited to these singular events. Teachers noted students' passions for sustainability in these PBL's and wanted to continue the momentum throughout the year. Ergo, Davies' Environmental Club has worked to generate income via fundraising and product donations to create an outdoor learning space. In pursuit of this outdoor learning space, we have created meaningful relationships with local businesses, non-profit groups, utility companies, and colleges. Now, our students benefit from a bed garden/green house, a pond, and a butterfly garden, all of which serve as a place to appreciate, take care of, learn about, and enjoy the fauna and flora of our local community. For many of our students, these outdoor habitats are their only exposure to these types of plants and animals. Cultivating a love for our environment through personal experience has been an integral part of implementing an effective environmental program here at the WDMS. Ultimately, our passion for the environment has transformed the way we teach, the way our students learn, and the way our community interacts with our school.

Although our academic initiatives are noble, we also take pride in our efforts to support our plan financially. The WDMS is a pioneer in reducing our environmental impacts and costs. The installation of solar panels resulted in significant savings for the Davies School and doubles as a learning opportunity for our students to study the benefits of solar energy. Moreover, we partnered with the Richard Stockton College of New Jersey to obtain an extensive Energy Audit for our school. A new action plan based on these suggestions has been set forth for the board to evaluate this coming January. We are confident that this partnership will allow us to increase our focus on energy management and reduce our carbon footprint.

The WDMS staff and students take ownership of sustainability and our part as global citizens for future generations to come. We recognize the importance of uniting under one common goal and using this momentum to create a ripple effect, beginning with the individual in hopes of changing the world. As we detail each of the pillars, we hope you too, will embrace Davies' philosophy and catch our enthusiasm for sustainability and our environment.

**Instructions for completing this form:** Please answer all of the questions below to the best of your ability, <u>in a different text color.</u> A more complete application will increase your chances of success. You may supplement the information in these questions by describing alternative benchmarks or indicators of progress (see final question in each section).

### SCHOOL PROFILE: GREEN SCHOOL PROGRAM AND AWARDS (Cross-Cutting Question)

- 1. Is your school participating in a local, state, or national program, which asks you to benchmark progress in some fashion in any or all of the Pillars? Yes X No\_\_\_ If yes, please explain what program(s) and what level you are currently at, and state the years you have been involved in these programs. (e.g. EPA Energy Star Portfolio Manager, Eco-Schools USA, PLT Green Schools, NJPALS, Green Schools Leadership Institute, NJ Learns, NJ Sustainable Schools Project, NJ Recycling).
  - Our school has utilized the EPA Energy Star Portfolio Manager for the past two years.
- 2. Has your school, staff or student body received any awards for facilities, health or environment? Yes X No Award(s) and year(s):
- JIF Awards/Recognition:
  - Atlantic and Cape May County School Business Officials Joint Insurance Fund Safety Elite Award (Districts that achieve
    the highest level of local safety awareness as measured by the annual ACCASBOJIF Safety Grant Program can earn this
    award. Hamilton Township Schools have earned this award every year since 1997.

• We also received the Safety District of the Year award in November 2010. We are proud to share that we currently received Elite II Status.

### • <u>Environmental</u> Club:

- 2008-2009: \$3,000 grant from AC Electric and NJ Water to install koi pond as an outdoor classroom in our "Ponds for Kids" program
- Fall 2009: Installed native plant/butterfly garden with donation of Ecosoil and native plants from local agencies
- 2011-2012: \$1,500 Healthy Kids Gardening Grant from AtlantiCare to start organic vegetable gardens
- 2012-2013: \$1,000 Garden Maintenance and Water Conservation Grant (AtlantiCare); installed rain barrels and a new drip irrigation system
- Fall 2012: \$1,000 grant for installation of greenhouse purchased from Teacher's Insurance
- 2013-2014: Recipient of \$500 Garden Maintenance Grant from AtlantiCare; Recognition for participation in ACUA's Annual Recycle Bowl 2013
- 2014-2015: Received Certification from the State of NJ to assist with the Wetlands Diamondback Terrapin Project, Received \$2,500 Eco-Schools USA grant to enhance wildlife on campus.
- Future: Currently awaiting the results of the ACUA's Recycle Bowl 2014 and the winners of the AtlantiCare Healthy Schools/Healthy Gardens Grant, the Whole Foods Gardens Grant, and the NFW Grant.

#### Art Department:

- 2012-2013: 6<sup>th</sup> grade Environmental Literacy (T21) projects were exhibited at the Hamilton Mall for shoppers to view and vote on their favorite projects. The students of the top three projects were awarded mall gift cards and recognized by the district school board. The paintings taught about endangered species and were painted on scrap cardboard.
- 3. Has your school identified or created a place for teachers to go to share lessons on Sustainability?

Yes\_X\_No\_\_\_ If yes, where? School webpage — Please visit: http://goo.gl/BLgtPh The WDMS Environmental Literacy (Talent 21) Curriculum for grades six through eight is accessible under the Environmental Literacy (Talent 21) link on the WDMS homepage. This link directs you to a Google site that it utilized by students, staff, and the community. Our Instructional Technology Integration Coach also maintains a plethora of resources there in a variety of formats, which includes a LiveBinder (http://goo.gl/PejUBo) for Environmental Literacy (Talent 21). Even though the grant is completed, we have made every effort to continue the momentum of the grant and infuse a 'green' curriculum in Davies for our students and staff.

- 4. Has your School Board adopted a Green Strategic Plan? Yes\_\_ No\_X
- 5. Has your school created a Green Team? Yes X No\_\_\_ If yes, list team members and their roles.

  Stephen P. Santilli, Lead Learner (Principal) of WDMS; Samantha Merkh, Richard Stockton College student and Stockton liaison;
  Dr. Michelle Cappelluti, Superintendent of Hamilton Township Schools; Dan Smith, Business Administrator for Hamilton Twp.

  Schools; Lisa Dagit, Director of Curriculum and Instruction; Ian Nelson, Director of Facilities for Hamilton Twp. Schools; Corey
  Imlay, Supervisor for Facilities; Bill Trackman, Director of Food Services for Hamilton Twp. Schools; Jen Laning, ELA Staff; Jessica
  Pikolycky, ELA Staff and Co-advisor for Environmental Club; Debbie Conrad, Science staff and Co-advisor for Environmental Club;
  Christy Morrison, Science staff and Dept. Chair for Science department; Lee Ann Campbell, Science staff; Beth Steinen, Social
  Studies staff; Michele Petrucci, Math Staff; Christine Lucca, Math Staff; Wendy McKensie, Guidance Counselor; Kim Mathis,
  Physical Education Teacher and Athletic Chair, and, when available, Mr. John Veisz, President of Fraytak Veisz Hopkins Duthie,
  P.C.
- 6. Has your school seen a cost savings from green initiatives? Yes\_\_\_\_ No X If yes, describe the cost savings or use the table below to fill in your cost savings data. As a result of the Facility Energy Audit, the use of Energy Star Portfolio Manager and this application, it has come to our attention that there are many billing discrepancies and potential energy issues in our school. This awareness is vital to implement a plan for energy reductions in the future and to save money.

	Electric Energy Consumption (kwh)	Natural Gas or Fuel Oil Consumption (therms)	Electric Utility Costs (\$)	Natural Gas Utility Costs (\$)	Total Utility Costs (\$)	Annual Savings (\$)	% Reduction from FY'10-'11
FY '10-'11	2,263,491	90,797.75	101,561.76	37,574.42	139,136.18	Baseline	Baseline
FY '11-'12	2,157,441	65,401.04	100,922.86	32,200.26	133,123.12	6,013.06	4.32%
FY '12-'13	2,109,639	79,037.59	115,093.29	46,223.07	161,316.36	-22,180.18	-15.94%
FY '13-'14	2,055,634	101,370.20	125,161.02	113,638.90	238,799.92	-99,663.74	-71.63%

### PILLAR I: REDUCED ENVIRONMENTAL IMPACT

Element 1A: Reduced or eliminated greenhouse gas (GHG) emissions

**Energy** (Please convert energy data to Portfolio Manager format if possible)

7. Can your school demonstrate a reduction in Greenhouse Gas emissions? Please fill in table below first.

(X) Yes ( ) No Percent reduction: 4.27% Over (m/yy - m/yy): July 2010 – June 2014

Initial GHG emissions rate (MT eCO2/person): 3.98 MT eCO2/person
Final GHG emissions rate (MT eCO2/person): 3.81 MT eCO2/person

Offsets: N/A How did you calculate the reduction? See Table Below

What do you use to benchmark your energy use? ENERGY STAR Portfolio Manager

Table is based on School data taken from <u>District Utility Bills inputted into ENERGY STAR Portfolio Manager</u> (Portfolio Manager, district utility bills, etc.), as reported by both Vendor and School/District Personnel (Vendor or School/District Personnel).

	Electric Energy Consumption (kwh)	Natural Gas Consumption (therms)	Fuel Oil Consumption (gallons)	Carbon Dioxide from Electric 1.52 lbs/kwh	Carbon Dioxide from Natural Gas 11.7 lbs /therms	Carbon Dioxide from Fuel Oil 26.033 lbs/gal	Total number of Staff & Students	MT eCO2 /person
<u>Example</u>	100,000	15,000	5,000	100,000 x 1.52 = 152,000	15000 x 11.7 = 175,500	5000 x 26.033 = 130165	250	(152000+ 175500+ 130165) /250/1000 =1.83
FY '10-'11	2,263,491	90,797.75	0	3440506.32	1,062,334.0	0	1131	3.98
FY '11-'12	2,157,441	65,401.04	0	3279310.32	765,192.2	0	1119	3.61
FY '12-'13	2,109,639	79,037.59	0	3206651.28	924,739.8	0	1124	3.68
FY '13-'14	2,055,634	101,370.20	0	3124563.68	1,186,032.0	0	1132	3.81

8. Has your school conducted an energy audit of its facilities? Yes X No\_\_\_\_\_

Please visit the following link to view the school's Facility Energy Audit Report submitted 5/5/14 by the Richard Stockton College of New Jersey. http://goo.gl/5dHntd

Percent reduction: There has been no statistical data to indicate any reductions as a result of the Audit; however, energy conservation measures are being implemented, upgrades to facilities are being made, and we are expecting to see significant savings over the upcoming years.

Measurement unit used (kBTU/Square foot or kBTU/student): kBTU/student

Time period measured: from FY '10-'11 to FY '13-'14

9. Has your school received EPA ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification? (score of 75 or above)

Yes\_\_\_ No\_X Year(s) and score(s) received: N/A

10. What percentage of your school's energy is obtained from:

On-site renewable energy generation: 14% Type: Solar Photovoltaic Array

Purchased renewable energy: 0% Type: N/A

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program: N/A

11. Has your school reduced its total non-transportation energy use from an initial baseline? Yes No X

Current energy usage (kBTU/student/year): Enter data in table below. Current energy usage (kBTU/sq. ft./year): Enter data in table below.

How did you document this reduction? N/A – no reduction

	Electric Energy Consumption (kBtu) 1kwh=3.412 kBtu	Natural Gas Consumption (kBtu) 1therm=100kBtu	Fuel Oil Consumption (gallons) 1 gal. = 139 kBtu	Number Occupants (Students& Staff)	kBTU/ <u>Occupants</u> (Students& Staff	kBTU/sq.ft.	% Reduction from FY'10-'11
FY'10-'11	7,723,031.292	9,079,775	0	1,131	14,856.59	0.077	Baseline
FY'11-'12	7,361,188.692	6,540,104	0	1,119	12,422.96	0.064	+16.88%
FY'12-'13	7,198,088.268	7,903,759	0	1,124	13,435.81	0.070	+9.09%
FY'13-'14	7,013,823.208	10,137,023	0	1,132	15,150.92	0.079	-2.60%

12. In what year was your school originally constructed? <a href="1988">1988</a> What is the total building area (sq.ft) of your school? Original: 98,500 SF; With Addition and BOE Addition: 191,700 SF; With maintenance garage that utilizes the same energy sources as the school: 192,900 SF

13. Has your school constructed or renovated building(s) in the past ten years? (X) Yes ( ) No

For new building(s): Which green building standard was used? Quality of building construction conformed with USGBC LEED V2.0 to achieve certification if applied – consistent with the NJ SCC/SDA criteria for new school construction)

Percentage building area that meets green I	puilding standards: N/A
Certification and level: N/A	_Total constructed area: N/A
For renovated building(s): Percentage of the	e building area that meets green building standards: 49% Certification and level:
<u>27 Points</u> Total renovated area: <u>94,4</u>	100 SF

Which green building standard was used? <u>USGBC LEED V2.0</u>

# Element 1B: Improved water quality, efficiency, and conservation

## **Water and Grounds**

14. Can you demonstrate a reduction in your school's total water consumption (measured in gal/square foot) from an initial baseline?

Yes No\_X\_ If yes, please complete the table below, then provide the following information:

Average Baseline water use (gallons per occupant): 984.1 gallons/occupant

Current water use (gallons per occupant):1,215.1 gallons/occupant

Percentage reduction in domestic use: -23.5%

Percentage reduction in irrigation: N/A

Percentage reduction: -23.5%

Time period: from FY '10-'11 to FY '13-'14

	Water Consumption (gallons)	Total Square Feet	Water Consumption (gals/sqft)	% Reduction from FY '10-'11
FY'10-'11	1,113,000	192,900	5.77	Baseline
FY'11-'12	1,225,500	192,900	6.35	+10.05%
FY'12-'13	1,294,000	192,900	6.71	+16.29%
FY'13-'14	1,375,500	192,900	7.13	+23.57%

Do you include after-hour activities in your water consumption calculations? (Adult sport leagues, adult education, scouting, other community events etc.?) Yes. Water consumption is based on an annual analysis that includes all after school activities, as well as, school dances, parent events, and events hosted by our Community Education Department.

How did you document this reduction: District Utility Bills inputted into ENERGY STAR Portfolio Manager

- 15. Describe any strategies you use to discourage single-use beverage containers on school property. Describe how you assure the recycling of those containers at athletic locations, or other outdoor events.
  - Environmental Health (Reduce, Reuse, and Recycle) is a large portion of introductory Health Curriculum for 6<sup>th</sup> grade students. Students work to produce public service announcements in reference to creating less waste. The district provides recycling bins in appropriate areas of buildings and in every classroom. Athletic programs utilize 3 to 6 gallon reusable Gatorade containers for water and Gatorade juice for our student athletes, who are encouraged to bring their own reusable bottles to fill up their drinks at games and practices. WDMS has also installed filling stations to discourage the use of single-use containers and to promote the "reduce, reuse, and recycle" philosophy.
- 16. What percentage of your landscaping is considered water-efficient and/or regionally appropriate? Approximately 80% of the schools landscaping is considered water-efficient. Almost all water runoff is captured and returned to the retention pond; thus, following mandated policies regarding soil erosion and sediment control. Types of plants used and location: There is a Serenity Pond and a Wing and Water Garden at the entrance to our school that was created by the Environmental Club. The development of the spaces has allowed for the grown of specific vegetation indigenous to the New Jersey Pinelands where WDMS resides.

  Examples include, but are not limited to: Black Eyed Susan's, Moonbeam Coreopsis, Purple Coneflower-Echinacea, Azaleas, Sedum Autumn Joy, Monarda (Bee Balm), Joe Pye Weed, Agastache, Blanket Flower, Red/Blue Cardinal Flower, Swamp Milkweed, Blue Star, Canadian Anemone, White Wood Aster, and White Turtleheads. Ornamental grasses are also a part of the landscaping.
- 17. What plants are native to your geographic location and how have you incorporated them? See Question 16.
- 18. Describe alternate Non-potable water sources used for irrigation (e.g. roof run-off, parking lot runoff). (50-words max)

  The school building was constructed within the NJ Pinelands Commission Jurisdiction, which requires 100% on-site storm water retention. Storm water is recharged into an aquifer, which supplies a source for controlled irrigation of athletic fields and grounds. Our Environmental Club has also utilized rain barrels.
- 19. Describe any efforts to reduce storm water runoff and/or reduce impervious pavement (e.g. rain gardens, bioswales, ponds). (50-words max)
  - To further reduce storm water runoff, we have applied for a grant to build a rain garden in one of the school's interior courtyards.
- 20. Our school's drinking water comes from: (X) Municipal water source () Well on school property () Other:
- 21. Describe how the water source is protected from potential contaminants. (50-words max) Our water source comes from HTMUA, which is bound by the requirements of USEPA to sample for over 100 contaminants and to monitor 80 contaminants in our drinking water. The five most recent Water Quality Reports are available at the following link: http://goo.gl/A1WVcq
- 22. Describe the program you have in place to control lead in drinking water. (50-words max) <u>Lead is one of the inorganic chemicals</u> (contaminants) sampled for and monitored by the HTMUA in compliance with the requirements of the USEPA.
- 23. Does your school have its own well? Yes X No\_\_\_\_ If yes, did your school comply with all monitoring requirements and did the drinking water meet all applicable standards? Yes\_\_\_ No\_\_\_ N/A The well on WDMS grounds is used for irrigation only.

- 24. Describe how your school's site grading and irrigation system and schedule is appropriate for your climate, soil conditions, plant materials, with an emphasis on water conservation: (50-word max)
  - The school was constructed under the NJ Pinelands Commission Jurisdiction. All mandates of the NJ Pinelands Commission are fitting to help preserve and enhance the Pinelands natural environment. Also, see Question 18.
- 25. What percentage of school grounds are devoted to ecologically beneficial uses? (50 word max)

  5-8% of the school's grounds are devoted to ecologically beneficial uses. These areas include the Serenity Pond, the Wing and Water Garden, and the Raised Bed Gardens.

### Element 1C: Reduce waste production - Waste/Hazardous Waste

- 26. What percentage of solid waste is diverted from landfilling or incinerating due to reduction, recycling and/or composting? Complete all the calculations below to receive points.
  - A Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): 8 cubic yards x 12 collections/month x 100% = 96 cubic yards/month
  - B Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): 8 cubic yards x 12 collections/month x 100% = 96 cubic yards/month
  - C Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected): N/A We only compost from the raised bed gardens Recycling Rate =  $(B + C) \div (A + B + C) \times 100$ :  $(96+9) / (96+96+0) \times 100\% = 50\%$
  - Monthly waste generated per person = (A/number of students and staff): 96/1132 =11.8 cubic yards
- 27. What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free? 100% of our paper is Forest Stewardship Council Certified and is "Acid Free."
- 28. Do you include after-hour activities in your garbage reduction calculations? (adult sport leagues, adult education, scouting, other community events etc.?) Yes. Our district has an excellent working relationship with our community and employs a Community Education Director. On any given afternoon or evening, sometimes seven days a week, our facilities are utilized by outside organizations from the surrounding communities. These organizations do generate additional waste, which is included in Question 26.
- 29. Verify that your school is compliant with the New Jersey Department of Environmental Protection's (DEP) Air Quality Permit requirements. Equipment at schools that require air permits include boilers, emergency generators, space heaters and hot water heaters that have a maximum rated heat input of 1 million BTU/Hr or greater, to the burning chamber. Also, some schools might require an air permit for certain woodshop operations.

  Our school has the required New Jersey DEP Air Quality Permits. Yes X No\_\_\_\_
- 30. Describe how you have reduced your paper consumption, and how you measured that reduction (e.g. working and reviewing online, white boards). (50-word max)

  Since the implementation of the Talent 21 Grant, WDMS has transitioned to a one-to-one technology system at all levels, in which the building is 100% wireless and every student and teacher has a laptop or Epson Smart Projector. Paper reduction is tracked by the Business Administrator.

31. List the types and amounts of hazardous waste generated at your school:

Flammable liquids	Corrosive liquids	Toxics	Mercury	Other:
Approximately 5 gallons	N/A	N/A	N/A	Approximately 5 gallons
of oil a year				of paint a year

How is this calculated? The small amount of disposal that is "estimated" (approx. 10 gallons) is through our facilities department and provided on a yearly basis by our local Municipal Utility Authority.

How is hazardous waste disposal tracked? Since hazardous waste is minimal and properly disposed of at our MUA, there is, unfortunately, no real tracking process and hazardous wastes must be estimated. See Policy #7433 at the following link: http://goo.gl/PEKyCK

- 32. Describe other measures taken to reduce solid waste and eliminate hazardous waste (on-site composting etc.). (100-word max)

  In an effort to reduce hazardous waste and water waste, our school has installed Arsenal Junior Chemical Dispensers in custodial closets that aide in the dilution of chemicals to meet the necessary safety specs as provided by the manufacturers. In addition, our Facilities Department has added new machinery, such as a ride-on auto scrubber that is "green certified" to reduce chemical waste.
- 33. Which green cleaning custodial standard is used? Green Seal Certified, United States EPA Registered

  What percentage of all products is certified? 20% Green Seal Certified, 40% US EPA Registered

  What specific third party certified green cleaning product standard does your school use? No third party standards are used at the moment. Currently, our facilities department has completed all work in-house from flooring to electric to plumbing and seeks to purchase sustainable products when possible. For example, to complete a recent carpet-tile project our facilities department purchased 'green' materials such as Grid Set Green Adhesive 2000 and CRI Green Label Plus Approved. InterfaceFLor Carpet was used because it is low VOC, contains an anti-bacterial backing, and comes from an environmentally friendly company that has a Mission Zero Pledge "Zero Emission. Zero Waste. Zero Oil."

  Describe the measures your school has taken to use only green cleaning product. Although we are fiscally constrained by an approved budget, we seek to first purchase products that are "green" and environmentally friendly, despite their increased cost, with the goal of obtaining 100% green cleaning products.
- 34. If your school has a nurse's office, how does the nurse track regulated medical waste? Describe the tools or mechanisms used to track this waste. Our Nurse's Office uses the "Sharps Disposal by Mail System" for disposal of medical waste, such as needles and syringes. This utilizes approximately two 1 gallon containers per year. The system (kit) contains all of the components needed for the collection and transportation of regulated medical waste and follows appropriate district policy and regulation. To see Policy #7420 and #7420.1 go to http://goo.gl/OT2EJ9.

35. Is a Hazardous Waste Policy for storage, management and disposal of chemicals in waste, in place and actively enforced? Yes <u>X</u> No	laboratories and other areas with hazardous
36. Are they any Underground Storage Tanks located at your School?YesNo using an underground tank?YesNo	If yes, do you have the proper permits for
Flament 1D: Use of Alternative Transportation	

37. What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school? (Note if your school does not use school buses) <u>Due to the geographic location of the school and its proximity to major highways, our district has a strict policy regarding busing and does not allow students to walk to school. While every student is provided with the opportunity to be bussed to school, a significant number of students carpool.</u>

How is this data calculated? (50-word max) No student is permitted to walk or bike to school. We are in the process of creating a survey to determine the number of bus riders vs. parent drop-offs (one student) vs. car poolers (2+ students) to encourage more bus and car pool transportation.

38. Has your school implemented?	
[X] Designated carpool parking spaces	
[X] A well-publicized no idling policy that applies to all vehicles (including school buses)	
[] A policy that encourages walking and/or bicycling to school	
[X] Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and window	vs

[] A Safe Routes to School program or a School Travel Plan

[] Walk and Bike to School Days - While we are unable to participate in the annual Walk/Bike to School events due to
district policies concerning student safety, we do have a school-wide event in May that centers around students walking
This event then culminates in a weekend 5k event for the entire community.
[X] A Walking School Bus program
[] Walking and bicycling safety curriculum
[] Electric vehicle charging stations have been installed to encourage the use of these vehicles
[] Secure bicycle storage (such as bicycle lockers, racks, or rooms) is provided to encourage bicycling to school

Describe activities in your safe routes program if applicable: (50-word max) N/A

39. If your school has only bus transportation, describe how your school transportation use is efficient and has reduced its environmental impact (e.g. more efficient bus routes, diesel retrofits for buses, use of biodiesel fuel, electric vehicles). (50-word max) Efficient Bus Routes are a requirement for the NJ DOE to save money, require fewer buses, less fuel, and reduce emissions. NJ adopted the CA Low Emission Vehicle program, effective 2009, thus a diesel retrofit program is required for diesel engines before 2009. Low sulfur diesel fuel is used by our transportation contractors.

### **Summary Question for Pillar 1**

- 40. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (100-word max)
  - The BOE has committed to Sustainable Jersey for Schools
  - ACUA Recycle Bowl participant to increase knowledge of recycling and to waste less
  - Energy Audit performed in Spring 2014 by the Richard Stockton College with the goal of increasing energy awareness and improving energy management
  - Use of ENERGY STAR Portfolio Manager to improve energy data tracking and management
  - ROD Grant Program: Boiler and Heat Pump Replacement (State Project #1940-120-14-1006-G04) and Automated Temperature Control (ATC) Replacements (State Project #1940-120-14-1002-G04) in progress
  - Upgrades to LED lighting, Hand Dryers, Light/Motion Sensors, Water Fountains/Filling Stations, Irrigation Timer with rain sensor, Eco-friendly Benches
  - Shared Bus Routes

### PILLAR 2: IMPROVE THE HEALTH AND WELLNESS OF STUDENTS AND STAFF

Element 2A: Integrated School Environmental Health program

### **Environmental Health**

- 1. Has your school conducted any "Occupant Survey" with teachers and students? If so, please state the date(s) and over results of the survey.(CHPS Occupant Survey) N/A Our district's Facilities Committee (BOE) is exploring the opportunity of registering to become a member of Collaborative for Higher Performance Schools in 2014
- Do you have an Operations & Maintenance Policy for your building? Yes, Policy #7410 (http://goo.gl/3fny7i) displays a comprehensive maintenance plan that is further supported by Regulation #7410 (http://goo.gl/CLhG0l) and Regulation 7410.01 (http://goo.gl/R4scJc). Furthermore Policy #7100 (http://goo.gl/GLNZiN) details a long-range facilities plan.
- 3. Describe your school's Integrated Pest Management efforts, including IPM/green certifications earned, routine inspection, pest identification, monitoring, record-keeping, etc.: New Jersey's requirement for Integrated Pest Management (IPM) must be implemented in all schools below college grade level as per N.J.A.C. 7:30-13. Our IPM plan is detailed in Policy #7422 (http://goo.gl/Qp1h6z). Moreover, we contract with Tri-County Pest Management, who is bound by the same statute. Documentation from Tri-County Pest Mgmt. can be found in our main office, as is documentation of the common areas they service.
- 4. What is the volume of your annual pesticide use (gal/student/year)? We do not currently have any annual pesticide use and have not for the past five years. Tri-County Pest Mgmt. uses low impact pesticides, as there has not been a need for high impact pesticide use for many years. Examples of low impact pesticides are roach and ant bait stations and glue traps. Describe efforts to reduce use: N/A

5.	Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of actions taken for each checked practice.
	[X] Our school conducts both indoor (structural) and outdoor (turf and ornamental) IPM to reduce student exposure to chemical pesticides.
	<ul> <li>[X] Our school prohibits smoking on campus and in public school buses</li> <li>[X] Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school.</li> </ul>
	[X] Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO) [] Our school does not have any fuel burning combustion appliances (e.g. boilers, emergency generators, hot water heaters, etc.)
	[X] NJ Recommends School Radon Testing: Our school has tested all frequently occupied rooms in contact with the ground, and first floor rooms above basement spaces that are not frequently occupied for radon gas and has fixed and retested rooms with levels that tested at or above 4 pCi/LYes $\underline{X}$ No
	[] Our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L YesX No
	[N/A] Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure.
6.	Describe how your school controls and manages chemicals routinely used in the school, as well as construction or cleaning activity that produces odors or dust, to minimize student and staff exposure. (100-word max) Baring any daily cleaning in our cafeteria, all cleaning and use of approved chemicals for classrooms, common areas and bathrooms occurs in the evening when students and faculty are not present in the building. Therefore students are never exposed to any chemicals. Moreover, special projects take place on previously scheduled school leaves or during summer months.
7.	Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (100-word max) See Question 6 above. Also, our district has very thorough policies regarding the use of hazardous materials, as well as the treatment of asthmas and administration of medications for asthma, which adheres to N.J.A.C. 6A-2.19a)5 and N.J.S.A. 18A:40-12.8(a). Policy also follows the standard of National Institutes of Health and the American Academy of Allergy, Asthma and Immunology.
8.	Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found. (100-word max) All HVAC unites contain humidity sensors, which are also controlled through the Automated Temperature Control System in our school/district. When ceiling leaks are recognized, portable dehumidifiers are immediately used, ceiling tiles are replaced, and, if needed, a professional company, such as All Risk, is called in for their professional services.
9.	Our school has installed local exhaust systems for major airborne contaminant sources. XYes No
10	. Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly. (100-word max) All preventative maintenance is done throughout the summer months on ALL units through the school. Filters are maintained and changed every three months by the Facilities department. Staff also utilize our School Dude Request System to electronically submit a work order if individual units are noticeable malfunctioning to expedite services.
11	. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards. (100-word max) As per code, dampers must allow for the ventilation of "outside air." The districts automatic temperature control (ATC) system is used in conjunction with HVAC units to regulate temperature control and energy use. However, even without the use of the ATC, ventilation of outside air must occur

at all times. To assist with this, the school is taking advantage of a NJ ROD Grant to maximize efficiency by upgrading the current

ATC system – State Project #1940-120-14-1002-G04.

[ <b>X</b> ] Ir	mplementing EPA IAQ Tools for Schools and/or
[X] C	onducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety
issue	es and take corrective action.
[ ] Pa	articipating in the Pediatric/Adult Coalition of NJ's Asthmas Friendly Awareness Program
<u>Our i</u>	nursing staff does an excellent job in providing professional development regarding a variety of topics, which include
ever	ything from asthmas to allergies to blood borne pathogens. All staff are required to view a Blood Borne Pathogen video
ever	y year and to sign off that they viewed and understood the information provided. Policy #7420 linked above contains
thore	ough regulations and procedures that comply with the State Department of Health and Labor (OSHA Standards for
	pational Exposure to Blood borne Pathogens) along with recommendations from the Center for Disease Control and
Preve	ention.
The r	nursing staff also plays a role in health measured assessments. Routine screenings for student health, including vision,
blood	d pressure, scoliosis, hearing, height and weight, are completed and reviewed by the nursing staff. Referrals are issued
in the	e event that the results of the screening indicate a problem. In an effort to show continued growth with these
meas	sures, our nursing staff created SGO's that pertain to student health components, even though it was not required by
the s	state.
13. Which of t	the following green procurement practices does your school engage in?
[ <b>X</b> ] B	uilding & Construction
[X] C	arpets
[X] C	leaning
[X] E	lectronics
[X] FI	leets
[X] F	ood Services
[X] La	andscaping
	eetings & Conferences
	Office Supplies
[X] P	• •
14. What syst	em do you use to determine if the above products and services are considered sustainable?
[] DO	DE Purchasing for Energy Efficient Products
[]CH	HPS High Performance Database
	ectronic Product Environmental Assessment Tool (EPEAT)
	ther
15. Does your	district have an Operations & Maintenance Policy for your buildings? See Question 2.
-	
Element 2B: N	Nutrition and Fitness
	trition, Fitness and Outdoor time
16. Which pra	actices does your school employ to promote nutrition, physical activity and overall school health? Provide specific
examples (	of actions taken for each checked practice, focusing on innovative or unique practices and partnerships. (100-word max
each)	
[] Our scl	hool participates in the USDA's Healthier US School Challenge. Level and year:
[X] Our so	chool participates in a Farm to School program to use local, fresh food.
[X] Our so	chool has an on-site food garden that teaches nutrition and environmental education, describe. We have 8 raised bed
organic v	egetable gardens on site. They are used to teach organic farming, composting, and healthy eating, as well as, to
encourag	ge students and families to start their own.
[X] Our so	chool garden supplies food for our students in the cafeteria, a cooking or garden class or to the community. The raised
bed garde	ens are utilized by our Food Services Director for educational purposes in Health classes. The produce is also consumed
	keholders of the school and community.

12. Describe other steps your school takes to protect indoor environmental quality such as: (200-word max)

- [X] Our students spent at least 120 minutes per week over the past year in school supervised physical education. WDMS students obtain between 160-200 minutes of Physical Education and/or Health each week. This encourages life-long "healthy" learners. Also, a new fitness room has been created with generous donations from a local Fitness Center (Tilton Fitness).

  [X] At least 50% of our students' annual physical education takes place outdoors. Students are able to take advantage of mild weather conditions for most of the school year and enjoy physical activity outdoors on the many athletic fields or on Oakcrest High School's track (our sending district).
- [N/A] Our school participates in the NJ Safe Routes to School Resource Center. Level and year: <u>Due to the school's proximity to dangerous highways</u>, there are no accessible bike/walking paths for students. Our district only allows for bus transportation or parent carpool.
- [N/A] Our school participates in International Walk to School Day in October and/or National Bike to School Day in May. Year(s): While WDMS would love to participate in the "International Walk to School Day" and "National Bike to School Day," circumstances do not allow for it and the school has been creative in encouraging walking, health and fitness in other ways.

  [X] Our school has a School Wellness Policy that addresses both nutrition AND physical activity. Policy 5310 Health Services contains our wellness policies pursuant to NJAC 2:36-1.7 Local School Nutrition and Policy 8505 on Nutrition.
- [X] Our school has a School Wellness Committee that meets at least once a year. Our Nursing staff meets once a year according to our nursing services plan. At the building level we also have a wellness and safety committee that meets monthly.
- [X] Health measures are integrated into assessments. Students are pretested in several areas of fitness according to the Fitness-gram program. Cardiovascular endurance is measured in the mile walk/run and pacer tests. Muscular strength is measured in the flexed arm hang/pull up tests and timed sit ups. Flexibility is measured with the sit and reach test. The post-test results are recorded over the next 2 marking periods to determine and track growth. Along with the testing battery, each class period includes practice in the components that are incorporated into warm up routines/classroom activities/Fitness Room rotations. These assessments are also part of our H/PE staff's required Student Growth Objectives (SGO's).
- [] At least 50% of our students have participated in the EPA's Sunwise (or equivalent program.)
- [] A certain percentage of the food purchased by our school food service is locally sourced from regional farms.
- Percentage: 75% Type: Produce. We are one of twelve schools in New Jersey that is a part of a pilot program with the DOD for produce.
- 17. Does your school compost lunch waste on-site? No, but the concept is being explored. If so, what percent? N/A How much is used in your outdoor classroom? We only compost materials from the raised bed gardens
- 18. What environmental technology is used at your school? (e.g. weather station, composting, rain garden) The Environmental Club recently began to compost with vegetation produced in our raised bed gardens. They also gathered recycled car wash drums (55 gallons) for student to create rain barrels, which are now used in our own gardens and sold to the community for fundraising. Beginning in Spring 2015, WDMS will be partnered with WeatherBug to place a WeatherBug tracking station on the Davies School. This will improve our curriculum related to weather (Science/STEM), provide a resource for our community, and keep all of our students/staff safe during the school day and during after school activities/sports.
- 19. Describe the type of outdoor education, exercise and recreation available. (100-word max) Outdoor team sports and fitness activities make up a large portion of our PE/Health and we encourage all students to be involved in our after school activities. WDMS intramural programs are offered once a week. WDMS also offers 12 interscholastic athletic programs. A large portion of the student body participates in these programs. Other community activities that are offered in the local community include: the Police Athletic League, Mays Landing Athletic Association, the local 4 H Club, Boys and Girls Scouts, and the township recreation department. (Also refer to question #7 in Pillar 3 below.)

### Coordinated School Health, Mental Health, School Climate, and Safety

20. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? X Yes \_\_\_\_ No If yes, describe the health-related initiatives or approaches used by the school: As a part of our Coordinated School Health
Approach we have a School Sefect Committee and a School Wellings Committee approaches a desiried to the property of a desiried to the property of the school schoo

Approach, we have a School Safety Committee and a School Wellness Committee comprised of administration and school staff who discuss health and safety issues in the school. These teams work together to address concerns, create plans for dealing with issues, and create up with new initiatives that will improve the health of all individuals within the school community. This year we have developed several health related initiatives that will serve all school community members including students,

staff, and parents. For starters, all incentives and "reward" activities for our Character Education program are centered on "Healthy" activities, such as dodge ball, volley ball, and running. We also incorporate weekly healthy messages in our morning announcements and quarterly healthy messages in our school newsletter. In January, we will kick off the New Year with several of those initiatives during our Wellness Month Kickoff. During that time, we will be offering healthy eating taste tests in our school cafeteria where students can try new healthier breakfast alternatives such as fruit and yogurt parfaits. We will be sponsoring Healthy Choice Contests such as our "Milk Mustache" Contest and our "Caught You Eating Healthy" Contest. Additionally, students will participate in a "Dancing with the Dragons" Contest where students post videos of themselves dancing in order to win fun prizes geared at being healthy. Staff members will be invited to take part in a "Staff Wellness Challenge" where they will be able to participate in "Buddy" activities where they can assist one another with meal planning and exercise goals. Additionally, the school will be sponsoring "Workout Workshops" in where there will be organized events that incorporate exercising. Families and community members will be invited to attend our workshop series that will have workshops on exercising, meal planning, and the benefits of gardening and eating organic.

- 21. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health, school garden education and/or safety? X Yes \_\_\_\_ No If yes, describe these partnerships: WDMS is a leader in providing services and access to community programs that promote student health and safety. Click the following link (http://goo.gl/e7VHu4) to see a packet of our Community Resources. Within our building, our students have access to no less than 5 mental health service providers on a daily basis. This can be in the form of recommended and scheduled counseling, or counseling on an as-needed or emergent basis. These providers offer groups on anger management and social skills, along with providing consultation to teachers for problematic behaviors. Regarding community relations, our school, has established partnerships with various mental health organizations in the community, such as AtlanticCare. Our staff is frequently updating our list of community resources and service providers, which is offered to families in need of assistance. From issues regarding counseling, to linkages to organizations which offer assistance with utilities and necessities such as food, we are able to assist our families in obtaining the help and support they need. Additionally, we are able to offer both neurological and psychiatric evaluations to recommended students on an as-needed basis. Our highest risk students have the benefit of receiving social skills training from local non-profit organizations on a weekly basis. Our school has developed and implemented several safety and evacuation plans, which have proven successful in crisis situations. These plans, some of which have now been implemented during actual crisis, provide for safety and security for the children in our school. This has been facilitated, in large part, by our emergency management department, including our school resource officers. School garden education is primarily funneled through our Environmental Club. For example, our advisors have created partnerships with AtlanticCare and ACUA, to name a few, in an effort to educate our school community concerning our raised bed gardens.
- 22. Does your school have a school nurse and/or a school-based health center? X Yes \_\_\_\_ No
- 23. Describe your school's efforts to support student mental health and school climate (e.g. anti-bullying programs, peer counseling, etc.): WDMS constantly strives to find ways in which we can continue to support school climate and student mental health. At the beginning of the school year, the school counselors visit each lunch period to provide the students with an introduction of the services provided to them by the school counseling program. The school counselors provide individual counseling and group counseling to address students' social, emotional, and academic needs. If necessary, counselors will also refer students and families to outside agencies for support. The school counselors oversee mediations to resolve peer conflict, assign students peer tutors for academic help, and assign teacher mentors to students that would benefit from developing a positive relationship with a staff member. To address anti-bullying efforts, the school has held assemblies sponsored by Youth Alliance and Be a Hero, as well as celebrating the Week of Respect October 6th-9th with daily activities to promote a positive school climate. Additional initiatives include motivational assemblies and guest speakers for both students and parents. We encourage parent participation and provide feedback at our Parental Involvement Committee Meetings in order to generate discussion and ideas on future initiatives. Additionally, we conduct student polls to obtain student feedback on activity ideas as well as school climate. At this time, we are developing a "Believe in You" Initiative that will reorganize our current and future efforts. Other examples include the following: I &RS Action Plans, Organizational groups and Conflict Resolution groups (through Guidance) and Praise Referrals.

#### **Summary Question for Pillar 2**

- 24. Describe any other efforts to improve coordinate health and safety, nutrition and fitness, highlighting innovative or unique practices and partnerships. (100-word max)
  - Replaced an old steamer in the kitchens (ECM from Energy Audit) to improve health and safety
  - Implement Davies Renaissance Program to enhance school climate and support student mental health Students who maintain academic and behavioral expectations are invited to participate in special planned events, including academic pep rallies and a student carnival
  - Hold "Spirit Days" so that students and staff can dress up in a special theme and show their school spirit
  - Food director meets with students each marking period to discuss the Healthy Hunger Free Kids Act, Nutrition, whole grain and organic foods, and the obesity epidemic

#### PILLAR 3: EFFECTIVE ENVIRONMENTAL AND SUSTAINABILITY EDUCATION

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems.

- 1. Which practices does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.
  - [X] Our school has an environmental or sustainability literacy requirement. (200-word max) WDMS recognizes the importance of sustainability and as a result, has embraced and embedded Environmental Literacy throughout all content areas. Focusing on "going green" is important and the WDMS knows that students must be engaged in meaningful and authentic learning tasks in order to create invested stakeholders in our sustainable future. Environmental Literacy Curriculum is embedded throughout the year and is as diverse as our student body in an effort to reach all students. One example is how our 8th grade ELA implements a unit exploring ways to preserve Seaside Heights. This unique task allows students to research the history of our shore, learn about erosion and hurricanes, brainstorm solutions to preserve our beach, and form theories about environmental careers that may be needed in the future. These students also participate in a "Green Career Day" as the culminating activity. Each grade-level and content area has their own focus that connects on global sustainable theme and results in a final culminating activity. The WDMS embraces Environmental Literacy because we know that in order to create lasting change, our students must be invested in developing and implementing the solution to the problem.
  - [X] Environmental and sustainability concepts are integrated throughout the curriculum. (200-word max) <u>Our quest to embed Environmental Literacy throughout the curriculum began with our TALENT 21 Grant, which functioned to increase students' global awareness and prepare them for their next level of schooling and future careers. Initially, WDMS adopted a theme-based approach to bring these issues to fruition across the core content and related arts areas (health, world languages, visual and performing arts, STEM, and literacy media technology). Prior to the grant, each science curriculum used a spiral approach, which included a unit at each grade level that emphasized an area of the environment. The grant provided us the opportunity to expand the curriculum to all content areas through the development of problem-based learning units and related lessons centered on real world problems. Since the conclusion of the grant, we have worked to continue the approach Talent 21 encouraged and maintain our environmental literacy and sustainability concepts.</u>
  - [X] Environmental and sustainability concepts are integrated into assessments. (200-word max) As previously stated, each content area has its part in our Environmental Literacy Curriculum. Although our intent is to inspire intrinsic motivation so that our students want to save our environment, we do assess students via formative and summative assessment to ensure our curriculum is effective. Students are required to participate in their grade-level PBL, which is assessed with individual performance rubrics. These assessments and their data are tracked by the student's individual classroom teacher. The students' performances on the required tasks are part of their overall grade for that particular content area. Yet, once the assessment is completed, our students participate in the culminating activity (which is not assessed) whether it is a presentation, the Walk for Water, or the Green Career Day. It's important to note that during this time students communicate with staff to demonstrate their understanding of all curricular concepts electronically via various web 2.0 tools. In turn, we decrease the amount of consumable resources (paper) being used in the school. This further ties into the states requirements regarding the NEW JERSEY TECHNOLOGICAL ASSESSMENT FOR PROFICIENCY AND INTEGRATION (NJTAP-IN).
  - [X] Students evidence high levels of proficiency in these assessments. (100-word max) <u>Teachers collect data for evidence of students' proficiencies as it relates to the project rubrics for the environmental/sustainability curriculum. As a result of students' increased awareness of these issues, and evidence of their understanding of environmental issues, several projects have been initiated by staff and students venturing to take the next step in promoting a "greener" Davies. Some of these</u>

projects that demonstrate students' proficiency and understanding of green concepts include: the creation of a pond, butterfly garden, vegetable garden, an increased awareness of recycling within the school, and the Environmental Club's affiliation with the Captain Planet Foundation.

[X] Professional development in environmental and sustainability education are provided to all teachers. (200-words) A comprehensive professional development plan was not only essential, but required to effectuate the implementation of the environmental and sustainability component of the TALENT 21 grant. Staff were trained by both outside and in-house professionals in order to develop and implement the environmental/sustainability curriculum. Training took place during week long summer institutes as well as district professional development days. Full time instructional technology coaches continue to assist staff in finding "green" ways to implement all curricula. The ITI coaches continue to work with staff during instructional time, as well as during common planning time to develop professionally. In addition, our Reading Specialist (Department Coordinator) has continued to assist staff with both revisions and implementation of our Environmental Literacy (Talent 21) PBL curriculum units.

### Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills

### 2. For schools serving grades 9-12, provide:

Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career: N/A Percentage scoring a 3 or higher: N/A

3. How does your school use sustainability and the environment as a context for learning science, technology, engineering and mathematics thinking skills and content knowledge? (200-word max)

This is a small sample of the types of curricular activities that exists across all grades and all content areas:

- Grade 8-Mathematics: Students use knowledge of geometric concepts of surface area to create structures that can be used in small-space-gardening to increase the growth rate of plants. Students chart and create growth charts based on their plant's growth. Using the data collected, students are able to use scatter plots to create lines of best fit to conjecture a hypothesis for creating a linear equation.
- Grade 8-S.T.E.M: Students work in cooperative learning groups to research evidence about current technology in
  agriculture and green construction methods that can be used in areas that have poor soil or limited arable land in order to
  maximize crop yields. Students become engaged in the process when they first examine where they acquire their food and
  types of structures to grow food; i.e. raised bed gardens, hydroponics, local farmers. During this project, students in
  classroom groups, collaboratively research and investigate sustainable agriculture and use "green" materials to build
  models to find energy and cost efficient structures. Our S.T.E.M. program is also a partnered with the nationally recognized
  Project Lead the Way program.
- 4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? (200-word max)
  - 8th Grade- Science: Students investigate the newest and greenest technologies for growing more food in less space. The students research square foot gardening and hydroponics (growing vegetables in water) to learn how to grow the most food efficiently and increase crop yields. Students then contrast the newest methods with traditional farming methods.
  - 8th Grade- English Language Arts: As explained above, students research careers and rewrite job descriptions as they may be in the future to reflect environmental changes and demands. In addition, as a culminating activity, the WDMS hosts a "Green" Career Day where local "green" businesses come to speak with students.
  - 8th Grade- Social Studies: The world is evolving into a more environmentally conscious global society. Green technology is
    the way of the future. Students work in small collaborative groups to research and investigate an industry of their choice
    and find evidence to explain how technology can be used to transform that industry into a greener industry of the future.
    Students then create a presentation using Web 2.0 tools that will be presented in class and exhibited during the eighth
    grade green career day.

### Element 3C: Development and application of civic knowledge and skills

5. Describe students' civic/community engagement projects integrating environment, environmental justice (<u>as defined by EPA</u>) and sustainability topics. (200-word max)

Various clubs and curricular activities engage our students in civic/community engagement projects that integrate the elements listed above. The Environmental Club is instrumental in creating the Serenity Pond, Wings and Water Butterfly Garden, raised bed gardens, greenhouse and rain barrels, with the assistance and donations of community businesses, as well as through the various grants from supportive local business such as AtlantiCare, ACUA, Atlantic City Electric, New Jersey American Water, Lynn's Garden and Ponds, Home Depot, Lowes, and Ace Hardware. All of these outdoor areas, as well as our solar panel information kiosk, continue to be living resource for all students in regards to environmental studies. The club participated in the Recycle Bowl this year through the ACUA, grew and donated cool weather vegetables to our local food bank, and is now affiliated with the Captain Planet Foundation. National Junior Honor Society participates in the Adopt-a-Road Program as well as Teens for Jeans, which encourages the "recycling" of gently used jeans, which are given to homeless teens throughout our country. "Walk for Water" is a curricular-based culminating activity where students raise awareness and money to donate to the nonprofit organization, PlanUSA, which builds wells in third world countries.

6. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (200-word max)

The Serenity Pond, Wings and Water Butterfly Garden, solar panel information kiosk, and the raised bed garden serve as the primary on-site indoor/outdoor learning environments that support our environmental/sustainability curriculum. Virtually every subject area utilizes these areas during the course of the year and school day. Some examples would include art students sitting outside and sketching their scenery, mathematics students completing problems pertaining to area to determine the amount of eco-friendly mulch that is needed, or science students obtaining samples of the pond water to conduct labs. Not only do all staff and students have access to these indoor/outdoor learning environments, but so do our school clubs and surrounding community. Students involved in the Environmental Club for instance complete daily tasks from feeding the koi in the pond to harvesting fresh organically grown vegetables in our garden to distribute to staff or community members. We are proud to say that these areas were created and maintained by our students, staff and community. Along with that, our students are working with our PTA and Education Foundation to gain insight into financial literacy by selling native plants and painted rain barrels to members of our school community to fund-raise.

- 7. Describe students' meaningful outdoor learning experiences at every grade level. (200 word max) 8<sup>th</sup> Grade:
  - o diade.
  - Students grow plants and create excel charts to determine the equation of the graph.
  - Students in Visual Art sketch the pond and garden area in the front of the school, which is then used as a reference for watercolor paintings. (also open to 7<sup>th</sup> Graders)
     7<sup>th</sup> Grade
  - Walk-for-Water Health PBL Students carry different weights of water 1/4 mile and check their heart-rate and time after each walk. Students evaluate the correlation between heart-rate and weight carried.
  - Students in STEM create bottle rockets using recyclable materials and launch the rockets outdoors. Student's measure altitude and flight duration while studying the relationship between weather conditions and rocket performance.

    6<sup>th</sup> Grade:
  - Students discover swallowtail caterpillars and monarch caterpillars around the school. Students release them into the gardens in October and in June.
  - Students utilize the schools pond/garden area to observe and record examples of biotic and abiotic factors in an ecosystem.
  - Square meter of soil: Students record observations of biotic factors within their square, measure and sample abiotic factors, such as soil properties, temperature, amount of sunlight, etc. Observations and measurements are used to infer the importance of various factors to the success of an ecosystem.

8. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 200-words)

Our school has partnered with utility companies, large corporations, non-profit organizations, and small business in an effort to improve our school and districts "environmental status." Over the past four years, we have made every effort to improve in every aspect outlined throughout the Pillars within this application. Our efforts not only affect our current students, but have a far-reaching effect on our surrounding area. For instance, one of our sending districts, Cedar Creek High School (CCHS), provides an opportunity for our students through their Environmental Science and Engineering Magnets. Oakcrest High School has also implemented a Biomedical Magnet, which is our main High School. All of these High School Magnets are also affiliated with Project Lead the Way, which ties in nicely with our Project Lead the Way, Gateway to Technology Program at Davies. Furthermore, ACIT also offers programs in science and engineering, which our students have the opportunity to apply. As a school and district, we strive to not only provide our school community with a safe and environmental friendly atmosphere, but have made it our mission to provide a rigorous curriculum that is the building blocks for our students for years to come.

### **Summary Questions for Pillar 3**

- 8. Describe any other ways that your school integrates core environment, sustainability, STEM, equity and environmental justice issues (as defined by EPA), green technology and civics into curricula to provide effective environmental and sustainability education, highlighting on innovative or unique practices and partnerships. (Maximum 200-words)
  - Energy Audit: Through our partnership with The Richard Stockton College of New Jersey an Energy Audit was completed and submitted to our school/district on May 5, 2014. The full Energy Audit can be accessed at http://goo.gl/wRDHfr
  - Sustainable Jersey for Schools: On November 18, 2014 our Board of Education took the first step to pass a resolution for their intent to pursue Sustainable Jersey for Schools certification. A link to the resolution can be accessed at: http://goo.gl/pB85td
  - Stockton College: Student Members, with NJPIRG-AmeriCorps: Energy Service Corps. spearheaded a K-12 education campaign on natural resource management (energy conservation and awareness) for which our school participated in.
  - Throughout Pillar 3 the impact of our Environmental Literacy (Talent 21) Curriculum was highlighted. We welcome the opportunity for you to visit our Environmental Literacy Google Site at: http://goo.gl/TQiqh8
  - STEM: Our school recently made the transition from Industrial Technology to STEM within Related Arts. As part of the program we have chosen to move forward with a curriculum that supports Project Lead the Way for middle school. This directly correlates to OHS and CCHS curriculum for Engineering/Biomedical. -Energy Star Participation and Portfolio Development.
- 9. How are your descriptions in number 8 supported or enhanced by your efforts in Pillar 1 to reduce environmental impact and costs for your school. (Maximum 100-words)

The largest cost and energy reductions will be realized from the implementation of recommendations made in the Energy Audit completed in 2014. This, along with our continued utilization of Energy Star's Portfolio Manager, will help us to identify both our strengths and weaknesses. The goal is to sustain programs and initiatives that are successful, while allocating resources efficiently to develop a plan to improve our weakest areas. Constant education, reinforcement and repetition is key with an everchanging student body, but with continued efforts, our school can achieve significant cost and energy reductions while also reducing our carbon footprint.